

December 27, 2019

California Air Resources Board
1001 I Street,
Sacramento, CA 95814

Re: Tier 2 Pathway Application: Application No. B0058

To Whom It May Concern,

Association of Irrigated Residents, Central California Asthma Collaborative, and Leadership Counsel for Justice and Accountability write in opposition to the dairy waste to energy project proposed by AMP Americas and RDF Jasper LLC: (1) information and data included in the application and relied upon for approval is redacted such that an independent review of the proponent's claims and the accuracy of calculations and impacts is impossible, (2) the project will increase air pollution and threatens water quality in the locality and region, thus undermining the state's climate, environmental justice, and equity goals, (3) it appears that the GHG calculations ignore both potential GHG emissions and double count alleged GHG reductions, (4) this project will actually incentivize the production of methane, and (5) the project will contribute to methane leakage from transport of gas.

Lack of Available Information and Data Transparency

The applicants and / or the California Air Resources Control Board (CARB) withheld and redacted information regarding dairy operations, energy production, and calculations related to GHG emission reduction such that it is impossible to determine both the air quality and water quality impacts that the project will produce, as well as the energy conversion and energy production rates which, along with information regarding dairy operations, is necessary to assess the veracity of the claimed project benefits and the carbon intensity value. In short, based on our review of the available documents there is no way to comment in any informed way on the proposed project or assess the accuracy and value of the justification presented. Below we have reproduced just one page that is illustrative of the amount and kind of data and information hidden from public review.

Exhibit 2. Herrema CI Calculation Details		1.1 Digester Product Biogas to Biomethane Injection	
CI Calculation Details – gCO ₂ e/MJ		The fugitive methane emissions from upgrading were modified to be facility specific.	
Raw Biogas Production – Digester			
Utility Sources Natura Gas			
Biogas Upgrading			
Grid Electricity			
Utility source NG			
Biomethane (flaring)			
Feed Loss (fugitive methane)			
Biomethane Transmission			
CNG Production			
Tailpipe Emissions			
Methane Avoided Credit			
CO ₂ Diverted Credit			
Final CNG CI	-151.41		
		Exhibit 1. Fugitive Methane for January 2019 to August 2019	
		Total in LHV (MMBtu)	Cell in Tier 1 CI Model edited

The materials available for review also leave out critical information regarding the demand for CNG and fail to take into consideration the availability of other, cleaner sources of energy (e.g. solar, wind, etc.).

Additionally, CARB withheld the following information, alleging that they contain confidential business information: Attestation Letter, Utilities Invoices, Facility Process Flow Diagram, and Monthly Data and Calculation for GREET Input Values. Without access to data critical to allow an independent analysis of truly monumental carbon intensity values or environmental and ecological impacts of the proposed project, the application must not be approved.

Finally, it is critical that there be up-to-date, accurate, verifiable, and ongoing monitoring of greenhouse gas emissions and air pollution along with water discharges from the subject dairies and related digester operations. No application should be approved without agreement from all applicants to participate in ongoing environmental monitoring that is available to the public and relevant agencies.

Air and Water Quality Impacts

This project will threaten environmental degradation in the local community and throughout the region due to increased air pollution and groundwater contamination. Studies find that manure exiting a digester emits as much as 81% more ammonia than raw manure. Increased ammonia together with increases in NO_x creates an even more intensive ammonium nitrate PM 2.5 impact.

Additionally, this project could impact air quality in California by sustaining use of polluting fuel when alternative, zero emission energy sources are available including solar and wind power. There is simply no need to generate and promote polluting energy when other sources are available, expanding, and increasingly cost effective.

Large scale dairies are a primary contributor to groundwater and surface water contamination. Cow manure, and in particular liquefied manure applied to cropland, contributes nitrate to groundwater, which impacts the health and economic well-being of residents and communities in nearby towns and cities. Digesters, like the digester at issue in this application, rely on manufactured, liquefied manure that is so deleterious to the environment and nearby communities to generate profits through energy production. Our present understanding is that anaerobic digesters, such as the one at issue here, do not remove – and in fact concentrate – nitrogen. The resulting digestate is thus at least as likely to impact water quality as unprocessed manure, and potentially more so. Furthermore, studies have shown that digesters that combine manure with other waste for increased fuel production, increase the nitrate concentration of digestate which in turn, when applied, will exacerbate groundwater pollution even more.

As no information is available with respect to herd size, volume of liquefied manure produced, nitrogen concentration or chemical composition in digestate, or application of digestate to land, it is impossible to know the extent to which this project could pollute and threaten water quality under and near the participating dairies.

Additionally and alarmingly, at least one dairy that will be the beneficiary of this project unlawfully discharged wastewater into surface water. At the very least, CARB must verify that each applicant is conforming with all mandated environmental requirements prior to approving any application and must incorporate reporting procedures that ensure ongoing compliance with legal mandates.

Incomplete and Potentially Inaccurate GHG Analysis

Similarly, the calculation of GHG emissions and alleged reductions ignore the GHG emissions of manure production. The GHG emissions from the dairy—including methane released from manure, enteric emissions, and other dairy operations—are not regulated. Therefore, these emissions must be calculated and applied to the lifecycle GHG analysis for this project.

As noted above, the The Bos Dairy, LLC, Herrema Dairy, LLC, and Windy Ridge Dairy, LLC are permitted to use materials other than onsite manure in their digesters - including cooking oil, distillers grain, food waste - and manure from other locations. It is unclear whether or not the applicants are double counting carbon credits through use of various feedstocks to produce and then distribute gas in multiple states. The Bos Dairy had a contract in the past to supply renewable energy to Ohio. Applicants may also be able to double count credits through use of distillers grain which is already used as a LCA credit in carbon accounting for ethanol under the LCFS. Distillers grain is a product left over from creating corn ethanol. Corn ethanol used in CA gasoline qualifies the blend as a lower

carbon fuel under the LCFS. Corn ethanol is imported from out of state for this blending purpose. The Carbon Intensity (CI) of gasoline blended with ethanol considers the fact that distillers grain is used as a valuable feed product for dairy cows. Without that added energy use from making corn ethanol, the CI of the corn ethanol would be significantly higher and not result in a low carbon fuel any better than straight gasoline. As such, any distillers grain used as feedstock in this digester may be counted twice as part of a low carbon fuel analysis under the LCFS.

The fact that food waste and other wastes may be added to the feedstock for these digesters, may be allowing the creation of methane that would not otherwise be created by these dairies alone using just their manure. The outside, non-dairy related feedstock, implies this project is producing methane that would otherwise not be created through the operations of the dairy alone. This, in turn, implies there should be no negative carbon intensity given to this methane because a significant quantity is being produced on purpose. The life-cycle assessment has to include the fact that feedstocks are being fed into the digester and creating methane solely because of the existence of the digester. This should disqualify the methane from receiving a negative carbon intensity.

Incentivized Production of Methane

This project and similar projects do not just undermine California's climate and environmental justice goals, but actually incentivize increased production of methane (and the concomitant pollution that accompanies methane production). To the extent that dairies are making manure and waste management decisions to increase methane production – such as increasing herd size to increase, in whole or in part, manure production, opting out of solid separation to increase methane, taking in food wastes for digestion, and even opting for liquefied manure management instead of methods that prevent production of methane in the first place – they should not reap the benefits of the LCFS program, designed to reduce greenhouse gases, instead of incentivize production thereof.

Climate Impacts of Methane Leaks

It appears that the analysis fails to take into consideration the climate impacts of methane leaks, including the cataclysmic impacts of methane blowouts like we've seen in gas infrastructure throughout the country and recently in Ohio.

These dairies may not be in compliance with local environmental regulations. The Bos Dairy has been cited by the State of Indiana and the Federal EPA for illegal runoff or discharge into local waterways at least twice in the past ten years. Windy Ridge has also been cited for illegal runoff.

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In conclusion, this project should be denied because it will harm air quality in both Indiana and California, threaten water quality, and fails to consider the full lifecycle emissions of

methane production from dairies and other feedstocks. Furthermore, there is inadequate data to determine the extent to which the project will reduce greenhouse gas emissions and fails to take into consideration how the project will incentivize production and emission of greenhouse gases. Unless and until there is publicly available and verifiable data demonstrating that this project will not produce negative local air and water impacts, and the extent to which this project will actually reduce greenhouse gas emissions that could not otherwise be reduced by other means, CARB must deny this application.

Sincerely,

Phoebe Seaton, Leadership Counsel for Justice and Accountability
Tom Frantz, Association of Irrigated Residents
Kevin Hamilton, Central California Asthma Collaborative